

Communication method between mobile telephone and base station - involves using intermediate zone to transmit between base station and broadcast repeater, transposing telephone channel to intermediate channel

Patent Assignee: SAGEM SA (SAGE)

Inventor: HURIAU A; ZIBELL L

Patent Family (4 patents, 24 & countries)

| Patent Number | Kind | Date | Application Number | Kind | Date | Update | Type |
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| EP 860953 | A1 | 19980826 | EP 1998400337 | A | 19980213 | 199838 | B |
| FR 2760167 | A1 | 19980828 | FR 19972099 | A | 19970221 | 199840 | E |
| EP 860953 | B1 | 20040519 | EP 1998400337 | A | 19980213 | 200433 | E |
| DE 69823901 | E | 20040624 | DE 69823901 | A | 19980213 | 200442 | E |
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Patent Details

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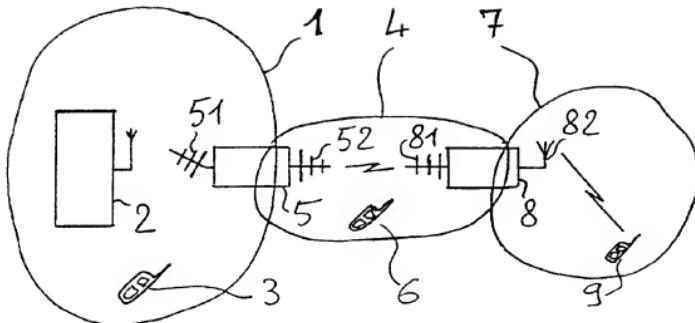
Alerting Abstract EP A1

The method involves using a broadcast repeater (8) covering a shadow zone (7) and a mobile telephone (9) set for one frequency channel. An intermediate zone (4) transmits between the base station (2) and a broadcast repeater.

The intermediate zone transposes the telephone channel to an intermediate channel. The channel is transposed back to the first channel for broadcast in the shadow zone.

ADVANTAGE - Allows the correct operation of the network in a mobile telephone shadow zone.

Main Drawing Sheet(s) or Clipped Structure(s)



Title Terms /Index Terms/Additional Words: COMMUNICATE; METHOD; MOBILE; TELEPHONE; BASE ; STATION; INTERMEDIATE; ZONE; TRANSMIT; BROADCAST; REPEATER; TRANSPOSE; CHANNEL

Class Codes

International Patent Classification

| IPC | Class Level | Scope | Position | Status | Version Date | |
|--------------|-------------|-------|----------|--------|--------------|--|
| H04B-007/26 | | | Main | | "Version 7" | |
| H04B-0007/26 | A | I | | R | 20060101 | |
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Germany

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Assignee: SAGEM SA; FR (SAGE)

Language: DE

Application: DE 69823901 A 19980213 (Local application)

EP 1998400337 A 19980213 (Application)

Priority: FR 19972099 A 19970221

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EPO

Publication No. EP 860953 A1 (Update 199838 B)

Publication Date: 19980826

Verfahren zur Funktelefonuebertragung zwischen einer Basisstation und einem mobilen Telefon mittels eines Funkrelais

Method of radiotelephone communication between a base station and a mobile telephone by means of a repeater

Procede de radiotелефонie entre une station de base et un téléphone mobile, par l'intermediaire d'un repeiteur

Assignee: SAGEM SA, 6, Avenue d'Iena, 75116 Paris, FR (SAGE)

Inventor: Huriau, Alain, 10 Chemin de la Corderie, 59910 Bondues, FR

Zibell, Laurent, 13 rue Ginoux, 75015 Paris, FR

Agent: Bloch, Gerard, 2, square de l'Avenue du Bois, 75116 Paris, FR

Language: FR (5 pages, 3 drawings)

Application: EP 1998400337 A 19980213 (Local application)

Priority: FR 19972099 A 19970221

Designated States: (Regional Original) AL AT BE CH DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI

Original IPC: H04B-7/26(A)

Current IPC: H04B-7/26(R,A,I,M,EP,20060101,20051008,A) H04B-7/26(R,I,M,EP,20060101,20051008,C)

Current ECLA class: H04B-7/26B2

Original Abstract: Communication method between mobile telephone and base station

The method involves using a broadcast repeater (8) covering a shadow zone (7) and a mobile telephone (9) set for one frequency channel. An intermediate zone (4) transmits between the base station (2) and a broadcast repeater.

The intermediate zone transposes the telephone channel to an intermediate channel. The channel is transposed back to the first channel for broadcast in the shadow zone.

Claim:

- 1. Procede de radiotелефонie entre une station de base (2) couvrant une cellule de communication (1) et un téléphone mobile (9) par l'intermediaire d'un repeiteur de diffusion (8) couvrant une zone d'ombre (7), le téléphone (9) etant cale sur une frequence de canal (Ci) determinee par la station de base (2), caracterise par le fait qu'on cree une zone intermediaire de transmission (4) entre la station de base (2) et le repeiteur de diffusion (8) et, de la cellule de base (1) a la zone intermediaire (4), on procede a une transposition du canal de transmission du canal du telephone (Ci) a un canal intermediaire (Cj) et, de la zone intermediaire (4) a la zone d'ombre (7), on procede a une transposition de canal inverse (Cj a Ci).

Publication No. EP 860953 B1 (Update 200433 E)

Publication Date: 20040519

Verfahren zur Funktelefonubertragung zwischen einer Basisstation und einem mobilen Telefon mittels eines Funkrelais

Method of radiotelephone communication between a base station and a mobile telephone by means of a repeater

Procede de radiotелефонie entre une station de base и un телефон mobile, par l'intermediaire d'un repeiteur

Assignee: SAGEM SA, 6, Avenue d'Iena, 75116 Paris, FR

Inventor: Huriau, Alain, 10 Chemin de la Corderie, 59910 Bondues, FR

Zibell, Laurent, 13 rue Ginoux, 75015 Paris, FR

Agent: Bloch, Gerard, 2, square de l'Avenue du Bois, 75116 Paris, FR

Language: FR

Application: EP 1998400337 A 19980213 (Local application)

Designated States: (Regional Original) DE FI IT SE

Original IPC: H04B-7/26(A)

Current IPC: H04B-7/26(R,A,I,M,EP,20060101,20051008,A) H04B-7/26(R,I,M,EP,20060101,20051008,C)

Current ECLA class: H04B-7/26B2

Claim:

1. Verfahren zum Funkfern sprechen zwischen einer Basisstation (2), die eine Kommunikationszelle (1) umfasst und einem Mobiltelefon (9), über einen Sendezwischenverstärker (8), der einen Schattenbereich (7) abdeckt, wobei das Telefon (9) fest auf eine von der Basisstation (2) bestimmte Kanalfrequenz eingestellt ist, dadurch gekennzeichnet, dass ein Zwischenubertragungsbereich (4) zwischen der Basisstation (2) und dem Sendezwischenverstärker (8) geschaffen wird, und von der Basiszelle (1) zum Zwischenbereich (4) eine Umsetzung des Übertragungskanals des Telefonkanals (Ci) zu einem Zwischenkanal (Cj) vorgenommen wird, und vom Zwischenbereich (4) zum Schattenbereich (7) eine umgekehrte Kanalumsetzung (Cj zu Ci) vorgenommen wird.

1. Radiotelephony procedure between a base station (2) covering a communication cell (1) and a mobile telephone (9), making use of a broadcasting repeater (8) covering a shadow area (7), the telephone (9) being locked onto a channel frequency (Ci) determined by the base station (2), characterized in that an intermediate transmission area (4) is created between the base station (2) and the broadcasting repeater (8), the transmission channel is transposed from the telephone channel (Ci) to an intermediate channel (Cj) in the section from the base cell (1) to the intermediate area (4), and the inverse channel transposition (Cj to Ci) is carried out in the section from the intermediate area (4) to the shadow area (7).

1. Procede de radiotelephonie entre une station de base (2) couvrant une cellule de communication (1) et un telephone mobile (9) par l'intermediaire d'un repeteur de diffusion (8) couvrant une zone d'ombre (7), le telephone (9) etant cale sur une frequence de canal (Ci) determinee par la station de base (2), caractérisé par le fait qu'on cree une zone intermediaire de transmission (4) entre la station de base (2) et le repeteur de diffusion (8) et, de la cellule de base (1) a la zone intermediaire (4), on procede a une transposition du canal de transmission du canal du telephone (Ci) a un canal intermediaire (Cj) et, de la zone intermediaire (4) a la zone d'ombre (7), on procede a une transposition de canal inverse (Cj a Ci).

France

Publication No. FR 2760167 A1 (Update 199840 E)

Publication Date: 19980828

Assignee: SAGEM SA (SAGE)

Inventor: HURIAU A

ZIBELL L

Language: FR

Application: FR 19972099 A 19970221 (Local application)

Original IPC: H04Q-7/36(A)

Current IPC: H04B-7/26(R,A,I,M,EP,20060101,20051008,A) H04B-7/26(R,I,M,EP,20060101,20051008,C)

Current ECLA class: H04B-7/26B2